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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,726	06/25/2003	Kazuyoshi Obayashi	111376.01	1535
25944	7590	02/07/2005	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			SWENSON, BRIAN L	
			ART UNIT	PAPER NUMBER
			3618	

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/602,726

Applicant(s)

OBAYASHI, KAZUYOSHI

Examiner

Brian Swenson

Art Unit

3618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/16/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-2 rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,112,151 issued to Kruse.

Kruse teaches in Figures 1-10 and respective portions of the specification of an engine-drive-regulation supporting apparatus mounted on a vehicle (16) driven by an engine (Figure 4), the apparatus comprising:

engine-drive-regulated region (see at least metro areas (56) shown in Figure 6) detecting means (Figure 1) including at least one of means for judging whether or not the position of the vehicle is in a prescribed engine-drive-regulated region on the basis of information received from a vehicle position detecting device provided on the vehicle (18) or from an external (20) with respect to the vehicle, and means for receiving an engine-drive-regulation signal from an external with respect to the vehicle (see at least Col. 6, lines 53-59); and

engine-drive regulating means for giving a notice to a vehicle driver (54; Figure 3), suspending the engine, or decelerating the engine (the injector map (83) switches to a multiple injector timing, which decreases the release of oxides of nitrogen, an ozone precursor) when it is judged that the position of the vehicle is in the prescribed engine-drive-regulated region or in

response to reception of the engine-drive-regulation signal. When the position of the vehicle is outside the prescribed engine-drive-regulated region the engine operates by injector map (81), a higher efficiency injector driver timing. The engine inherently operates slower in the engine drive regulated region (the region governed by injector driver timing map 81) than in the engine drive regulated region (83) to produce equal amounts of power. The engine inherently operates at a slower speed (within the engine drive regulated region (83)) to produce an equal amount of power due to operating at a higher efficiency (compared to engine drive regulated region (83)) by the injection relative to the piston's top dead center position and accordingly the engine operates at a higher pollution level.

In regards to claim 2 Kruse teaches of the engine-drive-regulation supporting apparatus as recited in claim 1, wherein the engine-drive regulating means includes:

means for judging whether or not the vehicle is in the prescribed engine-drive-regulated region and the present time is in a prescribed engine-drive-regulated time range (see at least Col. 3, lines 49-59, Col. 7, line 14; Figure 10 steps [0070]-[0100]); and

means for giving the notice to the vehicle driver (54 and Col. 4, lines 32-45), suspending the engine, or decelerating the engine when it is judged that the vehicle is in the prescribed engine-drive-regulated region and the present time is in the prescribed engine-drive-regulated time range.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,485,161 issued to Vaughn.

Vaughn teaches in Figures 1-4 of an engine-drive-regulation supporting apparatus (Figure 1) mounted on a vehicle (10) driven by an engine (14), the apparatus comprising: engine-drive-regulated region detecting means including at least one of means for judging whether or not the position of the vehicle is in a prescribed engine-drive-regulated region on the basis of information received from a vehicle position detecting device provided (GPS) on the vehicle (36) or from an external with respect to the vehicle; and means for receiving an engine-drive-regulation signal from an external (Figure 2) with respect to the vehicle; and engine-drive-regulating means for giving a notice to a vehicle driver, suspending the engine, or decelerating the engine (Figure 4, step 180) when it is judged that the position of the vehicle is in the prescribed engine-drive-regulated region or in response to reception of the engine-drive-regulation signal, see at least Col. 9, lines 29-44; Figure 4; Col. 10, lines 8-33.

Vaughn, states that a signal is sent to the engine computer to decrease the vehicle's speed in step 180 of Figure 4, see at least Col. 10, lines 30-34. Vaughn, does not specifically state that the fuel supply to the engine is reduced to effect slowing of the vehicle's speed. It would have been obvious to one having ordinary skill in the art at the time of invention to slow the vehicle by using the well-know method of reducing the fuel supply to the engine and to be in accord with Vaughn's objective (Col. 10, lines 32-33) of using, "engine computer to decrease the vehicle's speed".

Response to Arguments

3. In response to applicant's argument's on page 4 of the amendment filed on 16 November 2005 that the engine is not slowed by fuel injection timing. As disclosed above, the engine operates at a slower speed within the engine-control-region governed by injector timing map (81) than in the engine-control-region governed by injector timing map (83) to produce equivalent amounts of power and road speed. The engine, inherently, operates slower within region (81) by operating with a more fuel-efficient injector-timing map. Region (83) is less fuel efficient, by not completely burning the air/fuel mixture, thereby reducing the release of oxides of nitrogen. The driver is informed of which region the vehicle is operating in by dash display (54).

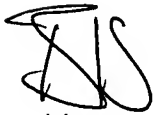
4. In response to applicant's arguments on page 5 of the amendment "the speed of a vehicle is typically implemented by activating braking device of the vehicle, in contrast to decelerating the engine". Vaughn, makes no mention of a typical braking device, but explicitly states, "the GPS computer signals to the engine computer to decrease the vehicle speed" (Col. 10, lines 31-33). It is well know in the vehicle art that decreasing the flow of fuel to an engine, slows the engine. It would have been obvious to one having ordinary skill in the art at the time of invention to look to slowing the engine by reducing fuel, by the engine computer taught by Vaughn.



Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Swenson whose telephone number is (703) 305-8163. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Ellis can be reached on (703) 305-0168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brian Swenson
Examiner
Art Unit 3618

 2/1.05
bls

CHIEF EXAMINER
SUPERVISOR
TECHNICAL STAFF